

# Overlooked plant species names associated with the botanical collections of Eugene Fitzalan

John Leslie Dowe

## Summary

Dowe, J.L. (2015). Overlooked plant species names associated with the botanical collections of Eugene Fitzalan. *Austrobaileya* 9(3): 439–444. Three overlooked species names, related to the botanical collections of Eugene Fitzalan are assessed for their nomenclatural validity. The names were published by Walter Hill: *Erythrina fitzalanii* W.Hill is found to be valid and placed as a synonym of *Erythrina variegata* L.; *Dendrobium luridum* and *Dendrobium fitzalani* are invalid and are therefore names that are to be rejected.

Key Words: Eugene Fitzalan, Fabaceae, Orchidaceae, *Erythrina fitzalanii*, *Erythrina variegata*, *Dendrobium fitzalani*, *Dendrobium luridum*, Queensland, Burdekin Expedition, overlooked species names

J.L. Dowe, Australian Tropical Herbarium, James Cook University, Smithfield, Queensland 4878, Australia. E-mail: john.dowe@jcu.edu.au

## Introduction

Whilst preparing a paper on the botanical collections of Eugene Fitzalan (b.1830; d.1911) who was active in Queensland during the latter decades of the 1800s (Dowe 2015), three apparently overlooked species names were encountered. The names were all introduced in publications written by Walter Hill. Two of the names, *Erythrina fitzalanii* and *Dendrobium luridum*, were cited in relation to the species collected by Eugene Fitzalan during the Burdekin Expedition (Hill 1860a). The third, *Dendrobium fitzalani* was included in the *Catalogue of the Plants in the Queensland Botanic Gardens* (Hill 1875). This paper discusses the names and assesses their nomenclatural validity.

## Botanical results of the Burdekin Expedition

The Burdekin Expedition of 1860 was the first botanical expedition to be sanctioned by the then newly formed Queensland Colonial Government. The Expedition departed Brisbane on 22 August 1860 in the Schooner *Spitfire*, under the command of Joshua W. Smith RN in the company of George Elphinstone Dalrymple, Commissioner of

Crown Lands for Queensland. The Expedition sailed as far north as Halifax Bay, and returned to Brisbane on 18 October 1860. Fitzalan was under contract to the Victorian Government as a paid collector engaged by Ferdinand Mueller, the Victorian Government Botanist. The intention of the Burdekin Expedition was to locate the mouth of the Burdekin River, and to determine if the river was navigable and suitable as a port (Dalrymple 1860; Smith 1860). About 140 specimens were collected by Fitzalan during the Expedition (Dowe 2015). The specimens were originally examined by Walter Hill (the Queensland Government Botanist) when the Expedition returned to Brisbane. Hill (1860b) provided an annotated species list, but only to the designation of family. The specimens were subsequently sent to Mueller in Melbourne, and he produced a detailed botanical treatment that described and annotated 88 taxa of which 10 were described as novelties (Mueller 1860). Later, based on collections by Fitzalan made during the Expedition, a further 16 new taxa were described in Bentham's *Flora Australiensis*, 11 in Mueller's *Fragmenta Phytographiae Australiae*, and one each in *Adansonia* and the *Journal de Botanique Néerlandaise* (Dowe 2015). In total, about 40 new taxa were described from Fitzalan's specimens collected during the Expedition. Following the Expedition, Fitzalan was to continue

collecting for Mueller in tropical Queensland, reaching a total of about 2200 specimens, thus placing him as one of the most productive botanical collectors in Queensland of that era (Dowe 2015).

### Overlooked species names

Two of the names, *Erythrina fitzalanii* and *Dendrobium luridum*, appeared in a newspaper article summarising the botanical results of the Burdekin Expedition, and were included within a quote that was ascribed to Hill (1860a). The third name, *Dendrobium fitzalani* appeared in a systematically arranged list of plants that were then being cultivated in the Botanic Gardens in Brisbane (Hill 1875). Searches of the APC (2015), APNI (2015), IPNI (2015) and Kew (2015) databases, and other relevant taxonomic citation sources were conducted and the names were not located, thus indicating that the names have not been recorded in the taxonomic literature.

The publication of new species names in non-scientific publications such as newspapers and catalogues has proven to be problematic for botanical nomenclature and taxonomy, particularly with regards to valid publication and typification (Nelson 1990; Ewan 1993; Dowe 2004). New names published in trade catalogues and non-scientific newspapers have been deemed invalid since 1953, but names published prior to that date may be permitted by the code, if the rules of botanical nomenclature are otherwise observed (McNeill *et al.* 2012). Two examples of names validly published in Australian newspapers are *Dendrobium falcorostrum* Fitzg. and *Dendrobium fuscum* Fitzg. (= *D. discolor* Lindl.), both published in the *Sydney Morning Herald* (Fitzgerald 1876, 1879).

### *Erythrina fitzalanii*

The name *Erythrina fitzalanii* was first published in *The Moreton Bay Courier*, Saturday, 27 October 1860: “*Burdekin Expedition – Botanical Research...through the courtesy of Mr. Hill, Superintendent of the Botanic Gardens... Amongst the ornamental plants the Erythrina fitzalanii (W.H.), a scarlet flowering coral tree, twelve feet in height, is the gem of those collected during the expedition.*

*Trees of it in flower were seen by the party six miles distant”* (Hill 1860a). This relates to direct observations made on Long Island by Fitzalan (1860) of a flowering *Erythrina*: “... we saw in the centre of one of the patches of scrub...a tree of such an intense scarlet that it was visible at a distance of several miles. I made my way to this spot, and found it to be a new *Erythrina*, completely covered with large scarlet blossoms, but without a single leaf on it. This is the most beautiful tree I have ever seen”. Smith (1860) was similarly impressed with the *Erythrina*: “Here [Long Island], and at every place we visited, geological and botanical specimens were obtained; among the latter, a most beautiful flower of a scarlet color, completely covering the few trees which we saw. Upon close examination it was observed that, at this season, there were no leaves on the tree, which has a whitish bark, and is about 20 ft in height”. Hill (1860b) produced a ‘List of Specimens, collected by Mr. Fitzalan’ from the Burdekin Expedition designated only to family, in which he included a significant number under Fabaceae. Although not directly relatable to Hill’s list, there is one item that may pertain to Fitzalan’s collection, it being: “18. *Fabaceae*, a handsome tree, beautiful when in flower, wood close grained and firm”. This is the only Fabaceae tree included in Hill’s list, the others being described as shrubs or vines.

Fitzalan’s collections of *Erythrina* species at MEL include *E. variegata* L. from Port Denison [MEL 0072371], *E. vespertilio* Benth. from both Port Denison and Moreton Bay [MEL 0072399, MEL 0072401, MEL 0072450 and MEL 0072467], and a specimen filed as *Erythrina* sp. [MEL 2113384] from the Cumberland Islands (**Fig. 1**). The Cumberland Islands, as accepted at that time, included the islands between Hayman Island in the north to St Bees Island in the south and thus encompassed Long Island. It is assumed that the latter collection was made at Long Island, as described by both Smith and Fitzalan. An examination of the flower parts in that specimen relates it to *E. variegata*. The only other possible species that it could be, based on known distribution, is *E. vespertilio* Benth. subsp. *vespertilio* but the flower

parts in the MEL specimen are significantly longer and therefore exclude that species. Considering this, the specimen can serve as a type for the name *E. fitzalanii* W.Hill, but with the taxon made synonymous with *E. variegata* L. The description provided in the newspaper article is adequate to identify the plant to *E. variegata*, with gregarious scarlet flowers, habit to about 3–6 m in height, bark whitish and leaves deciduous. An addition to the synonymy of *E. variegata* as presented by Bean (2008) is thus:

**Erythrina fitzalanii** W.Hill, *The Moreton Bay Courier* [Vol 15, No. 936] 27 Oct. 1860: 2. **Type:** Queensland. SOUTH KENNEDY. Cumberland Islands [Long Island], 1860, *Fitzalan s.n.* (lectotype: MEL 2113384 [here designated]).

### **Dendrobium luridum**

The second overlooked name was also introduced in the same article in *The Moreton Bay Courier*: “Two beautiful plants of the *Dendrobium luridum*, and its variety, with yellow flowers, were also collected on the islands” (Hill 1860a). This was later spelt as *Dendrobium laridum*, in a re-issue of the article in another newspaper (Hill 1860c). A search of both MELISR and the Mueller Correspondence files at RBG Melbourne failed to locate any specimens or references that relate to this name (A.Vaughan and S.Maroske, *pers. comm.*). As there are contraventions of Articles in the ICBN [Melbourne Code] (McNeill *et al.* 2012), i.e. Article 9 (identity ambiguous); and Article 36 (when it is merely proposed in anticipation of the future acceptance of the taxon concerned), this name is to be rejected. The identity of this species is otherwise not able to be determined: one possibility is that it relates to *Dendrobium discolor* Lindl., but this cannot be established because of the lack of description and the absence of extant specimens.

### **Dendrobium fitzalani**

The third overlooked name was introduced in Hill’s *Catalogue of the plants in the Queensland Botanic Gardens*, as verbatim: “*Dendrobium fitzalani* F.M....Dendron, trees; bio, to live; growing upay, Epi....Queensland”

(Hill 1875). As the name was appended with the authorship of F.M. [i.e. F. Muell.], searches were conducted of Mueller’s Correspondence at RBG Melbourne to locate any reference in communications between Hill and Mueller, as well as the MELISR database (A.Vaughan and S.Maroske, *pers. comm.*), and no such name was located. As there are contraventions of Articles in the ICBN [Melbourne Code] (McNeill *et al.* 2012), i.e. Article 9 (identity ambiguous); and Article 36 (when it is merely proposed in anticipation of the future acceptance of the taxon concerned), this name is to be rejected.

### **Acknowledgements**

Nimal Karunajeewa and Alison Vaughan of the National Herbarium of Victoria (MEL) are thanked for assisting with access to MELISR and for the image of the Fitzalan specimen in MEL. Sara Maroske is thanked for undertaking searches of the Mueller Correspondence archives at MEL and Charles Nelson is thanked for comments on the original draft.

### **References**

- APC [AUSTRALIAN PLANT CENSUS] (2015). Australian Plant Census, <http://www.anbg.gov.au/chah/apc/>, accessed 4 April 2015.
- APNI [AUSTRALIAN PLANT NAME INDEX] (2015). Australian Plant Name Index, <http://www.anbg.gov.au/apni/>, accessed 4 April 2015.
- BEAN, A.R. (2008). A taxonomic revision of *Erythrina* L. (Fabaceae: *Faboideae*) in Australia. *Austrobaileya* 7: 641–658.
- DALRYMPLE, G.E. (1860). Report of the proceedings of the Burdekin Expedition, Part 2. In *Report of the proceedings of the Queensland Government schooner “Spitfire” in search of the mouth of the River Burdekin, on the north-eastern coast of Australia: and the exploration of the portion of that coast, extending from Gloucester Island to Halifax Bay*, pp 12–38. T.P. Pugh’s Printing Office: Brisbane.
- DOWE, J.L. (2004). Taxonomic notes on palms (Arecaceae) in catalogues of the Brisbane Botanic Garden, Australia, of 1875 and 1885. *Austrobaileya* 6: 967–971.
- (2015). “I saw a good deal of the country much more than any other collector”: An assessment of the botanical collections of Eugene Fitzalan (1830–1911). *Cunninghamia* 15: 87–133.



**Fig. 1.** Lectotype of *Erythrina fitzalanii* W.Hill. Original label collected by Eugene Fitzalan from Cumberland Islands [Long Island] during the Burdekin Expedition, 1860, MEL 2113384.





**Fig. 1 (cont.)** Lectotype of *Erythrina fitzalanii* W.Hill. The reverse of the label showing the printed herbarium data. Reproduced with permission from the National Herbarium of Victoria (MEL), Royal Botanic Gardens Melbourne.

- EWAN, J. (1993). An overlooked printed *Catalogue of plants in the botanick garden of South-Carolina*, 1810. *Taxon* 42: 365-367.
- FITZALAN, E. (1860). Report on the Burdekin Expedition. *The Moreton Bay Courier* [Vol. 15, No.938] 1 November 1860: 2-3. <http://www.trove.nla.gov.au>, accessed November 2014.
- FITZGERALD, R.D. (1876). New *Dendrobium*. *The Sydney Morning Herald* [Vol. 74, No. 12013] 18 Nov. 1876: 7. <http://www.trove.nla.gov.au>, accessed November 2014.
- (1879). To the editor of the Herald. *The Sydney Morning Herald* [No. 12941] 24 Sept. 1879: 3. <http://www.trove.nla.gov.au>, accessed November 2014.
- HILL, W. (1860a). [Quoted in] *Burdekin Expedition – Botanical Research. The Moreton Bay Courier* [Vol 15, No. 936] 27 October 1860: 2. <http://www.trove.nla.gov.au>, accessed November 2014.
- (1860b). Appendix B. List of specimens collected by Mr. Fitzalan, during the expedition to the north-eastern coasts of Queensland. In J.W. Smith & G.E. Dalrymple, *Report of the proceedings of the Queensland Government schooner “Spitfire” in search of the mouth of the River Burdekin, on the north-eastern coast of Australia: and the exploration of the portion of that coast, extending from Gloucester Island to Halifax Bay*, pp. 39–42. T.P. Pugh’s Printing Office: Brisbane.
- (1860c). [Quoted in] *Burdekin Expedition – Botanical Research. The Mercury* [Hobart] [Vol. 6, No. 983] 26 November 1860: 3. <http://www.trove.nla.gov.au>, accessed November 2014.
- (1875). *Catalogue of the plants in the Queensland Botanic Garden*. J.C. Beal: Brisbane.
- IPNI [INTERNATIONAL PLANT NAME INDEX] (2015). The International Plant Name Index, Published on the Internet <http://www.ipni.org>, accessed 4 July 2014.
- KEW (2015). *The Plant List*. A working list of all plant species, <http://www.theplantlist.org>, accessed 4 April 2015.
- MCNEILL, J.; BARRIE, F.R.; BUCK, W.R.; Demoulin, V.; Greuter, W.; Hawksworth, D.L.; Herendeen, P.S.; Knapp, S.; Marhold, K.; Prado, J.; Prud’homme Van Reine, W.F.; Smith, G.F.; Wiersema, J.H. & Turland, N.J. (2012). *International Code of Nomenclature for algae, fungi, and plants (Melbourne Code) adopted by the Eighteenth International Botanical Congress Melbourne, Australia, July 2011*. Regnum Vegetabile 154. A.R.G. Gantner Verlag KG.

- MUELLER, F. (1860). *Essay on the plants collected by Mr. Eugene Fitzalan during Lieut. Smith's expedition to the estuary of the Burdekin*. John Ferres: Melbourne.
- NELSON, E.C. (1990). '...and flowers for our amusement': the early collecting and cultivation of Australian plants in Europe and the problems encountered by today's taxonomists. In P.S. Short (ed.), *History of systematic botany in Australasia*, pp. 285–296. Australian Systematic Botany Society: South Yarra.
- SMITH, J.W. (1860). Report of the proceedings of the Burdekin Expedition, Part 1. In *Report of the proceedings of the Queensland Government schooner "Spitfire" in search of the mouth of the River Burdekin, on the north-eastern coast of Australia: and the exploration of the portion of that coast, extending from Gloucester Island to Halifax Bay*, pp 1–11. T.P. Pugh's Printing Office: Brisbane.